



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,299	11/01/2000	John R. Bianchi	RTI-106	2390

7590 01/19/2006

DONALD J. POCHOPIEN
500 WEST MADISON STREET
34 FLOOR
CHICAGO, IL 60661

EXAMINER

PHILOGENE, PEDRO

ART UNIT PAPER NUMBER

3733

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

TLK

Office Action Summary	Application No.	Applicant(s)	
	09/704,299	BIANCHI ET AL.	
	Examiner	Art Unit	
	Pedro Philogene	3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14, 16-20, 22, 23, 25 and 27-33 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 11-14, 16-20, 22, 23, 25 and 27-33 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14, 16-20, 22-23,25,27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (6,200,347) in view of Pavlov et al. (5,906,616).

With respect to claims 11, 20, 27, Anderson et al discloses an assembled implant, as best seen in the figures, for implantation between adjacent vertebrae in the spine of a patient comprising two or more sections of cortical bone; as best seen in FIGS.1-10, that are joined together in tandem by a pin (7,19,31) to form an implant that is longer than it is wide, as best seen in FIGS.9,10, the pins interconnecting the section to form an elongated body from about 5mm to about 25 mm in length wherein all longitudinal surface are continuously tapered and protruded, readable as threaded, (since Anderson et al disclose in column 6, lines 50-52, column 7, lines 1-13, surfaces including continuous protrusions) the elongated body also having first end having a first diameter for initially engaging adjacent vertebrae and an opposing second end having a second diameter that is larger than the first diameter, (since Anderson et al disclose in column 6, lines 39-40 that the bone graft is a tapered cylinder); as set forth in column 8,

Art Unit: 3733

lines as set forth in column 23, lines 1-67, column 31, lines 1-22 and as best seen in the figures.

Although Anderson et al taught of tapered implant and continuous protrusions as texture on the implant; it is noted that Anderson did not teach of threads on the surface of the implant, and a slot in the second end for engaging a driving device; as claimed by applicant. However, in a similar art, Pavlov et al. evidences the use of threads on the surface of conically shaped implant to secure the implant in the vertebrae and a slot at the second end to drive the implant.

Therefore, given the teaching of Pavlov et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the continuous protrusions with the threads pattern of Pavlov et al. and incorporating a slot as taught by Pavlov to secure the implant in the vertebrae and a slot at the second end to drive the implant.

As to the language, the pins suited for conveying torsional load, the pins of Anderson et al are suited for conveying torsional load, see pin (7) of FIGS. 35, 37, 43, 44, and as set forth in column 14, lines 40-45, lines 55-58.

With respect to claims 12-14, 16-19, 22, 25, 28-33, the above combination of references teaches all the limitations, as set forth in column 6, lines 37-67, column 7, lines 1-16, column 8, lines 29-35, column 23, lines 1-67, column 31, lines 1-22 and as best seen in the figures of Anderson et al., and as best seen in the figures of Pavlov et al.

With respect to claim 23, the method steps, as set forth, would have been obviously carried out in the operation of the device, as set forth above.

Response to Amendment

Applicant's arguments filed 11/04/05 have been fully considered but they are not persuasive. Applicant's arguments that Anderson did not teach any showing of an assembled implant having a circular cross-section, but nowhere in the claims is applicant claiming a circular cross-section. As to "all longitudinal surfaces are tapered", Anderson discloses in FIG.9 that all longitudinal surfaces are tapered. Even if the drawings of Anderson did not show a tapered cylinder, in column 6, lines 39-40, Anderson discloses that the bone graft is a tapered cylinder, which is being claimed by applicant. Although Anderson did not specifically teach of threads, as claimed by applicant, in column 6, lines 47-48, Anderson discloses texture surfaces on the graft that include a plurality of continuous protrusions which alone could be read as threads or combining with Pavlov.

Contrary to applicant's argument that Pavlov teaches of a flute at the end of the threads which teach away from applicant invention, applicant's attention is directed to Pavlov, column 5, lines 21-24, where Pavlov discloses that "in other embodiments, the flutes can be eliminated from the distal end and such embodiments are still within the spirit and scope of the invention". Therefore, combining Anderson and Pavlov is proper.

In addition, applicant stated that Pavlov did not teach of a slotted second end, applicant's attention is directed to the fact a slot is an opening. Therefore, given to the claims the broadest interpretation the opening in the second end of the implant of Pavlov

Art Unit: 3733

to accommodate a driver is a slot. Moreover, the use of a slot is old and well known in the implant field, as best seen by the pertinent art to Brantigan (4,878,915).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4,878,915

11-1989

Brantigan

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3733


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (571) 272-4716. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272 - 4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pedro Philogene
January 13, 2006


PEDRO PHILOGENE
PRIMARY EXAMINER